

JAYHAWK PIPELINE, L.L.C.

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MAR 30 2007



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March 26, 2007

Mr. Ivan A. Huntoon
Director, Central Region
Office of Pipeline Safety
901 Locust Street, Room 462
Kansas City, MO 64106

VIA FEDERAL EXPRESS

RE: CPF No. 3-2007-5003M

Dear Mr. Huntoon:

Reference is to your Notice of Amendment dated February 26, 2007 and received on March 1, 2007 which required corrections of identified inadequacies found within Jayhawk Pipeline's plans or procedures.

Attached are the required corrections to Jayhawk Pipeline's plans and procedures identified in your February 26, 2007 Notice of Amendment. To facilitate your review, each identified inadequacy is printed on the attached response and our procedure manual correction is shown immediately following in bold font.

Please call me at 620-241-9240 if you have any questions regarding the attached pipeline operations and maintenance manual corrections.

Sincerely,

Myron B. Hoover
General Manager

/edg

c: Rick Petersen

NOTICE OF AMENDMENT – CPF 3-2007-5003m
Corrections to Jayhawk Pipeline's Plans and Procedures

1. §195.402 Procedural Manual for Operations, Maintenance and Emergencies.

§195.402(a) requires that each operator shall prepare and follow for each pipeline system a manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies.

§195.402(c) indicates that the manual required by paragraph (a) of this section must include procedures for the following to provide safety during maintenance and normal operations:

(3) Operating, maintaining and repairing the pipeline system in accordance with each of the requirements of this subpart and subpart H of this part.

Review of the Operation and Maintenance (O&M) manual found that the following requirements were not adequately covered in the manual or needed to be expanded to provide additional guidance to your personnel. Items (a) through (x) are required to be included in the manual by §195.402(c)(3).

- (a) §195.54 Accident Reports
(b) Whenever an operator receives any changes in the information reported or additions to the original report on DOT Form 7000-1, it shall file a supplemental report within 30 days.

Procedures did not state that a supplemental report must be filed within 30 days when any changes in the information reported or additions to the original reports of DOT Form 7000-1 are made.

Section 601 step 9 in Jayhawk's accident reporting procedure addresses this issue as follows:

<u>Step</u>	<u>When</u>	<u>Who</u>	<u>What</u>
9.	<i>Within 30 days of whenever changes in the information or additions to the original report of DOT Form 7000-1 are received.</i>	<i>Operations Manager</i>	<i>File a supplemental report within 30 days</i>
(b)	§195.120	Passage of internal inspection devices.	
	(a)	Except as provided in paragraphs (b) and (c) of this section, each new pipeline and each line section of a pipeline when the line pipe, valve, fitting or other line component is replaced, must be designed and	

constructed to accommodate the passage of instrumental internal inspection devices.

Procedures did not state new construction must be designed and constructed to accommodate instrumented internal inspection.

Section 816.2 (b) of Jayhawk's revised Operations and Maintenance Manual states:

(b) New facilities, or when existing facilities are replaced, must be designed to accommodate the passage of instrumented inspection pigs.

- (c) §195.222 Welders: Qualification of welders.
 - (b) No welder may weld with a particular welding process unless, within the preceding 6 months, the welder has—
 - (1) Engaged in welding with that process; and
 - (2) Had one weld tested and found acceptable under Section 9 of API 1104.

Procedures did not state that welder must have welded in the last 6 months with a particular process and had one weld tested and found acceptable under Section 9 of API 1104.

Section 227.2.2 of Jayhawk's revised Operations and Maintenance Manual states:

227.2.2 Requalification

A qualified welder is restricted to performing welds that fall within the limits of the essential variables listed in API 1104 or 1107, section 3. If any of the essential variables are changed, the welder must be requalified.

No welder may weld with a particular process unless, within the preceding 6 calendar months, the welder has-

- (1) Engaged in welding with that process; and**
- (2) Had one weld tested and found acceptable under Section 6 of API 1104.**

- (d) §195.234 Welds: Nondestructive testing.
 - (b) Any nondestructive testing of welds must be performed—
 - (1) In accordance with a written set of procedures for nondestructive testing; and

- (2) With personnel that have been trained in the established procedures and in the use of equipment employed in the testing.

Procedures did not address the qualifications requirement for personnel to interpret nondestructive test results. Jayhawk uses recommended Practice SNT-TC-1A to certify Level II or higher personnel to interpret test results. The procedures need to be updated to include this requirement.

Section 804.7 of Jayhawk's revised Operations and Maintenance Manual states:

804.7.3 NDT Personnel Qualifications

(a) Operators of nondestructive testing (NDT) equipment shall be required to demonstrate the inspection procedure's capability to detect rejectable defects and the NDT operator's ability to properly interpret the indications given by the equipment.

(b) NDT inspection personnel shall be qualified by experience and training for the specified NDT inspection work. All NDT personnel qualifications shall be acceptable to the Company.

(c) Documentation of NDT personnel qualifications shall be retained by the NDT testing Contractor and shall include, but not be limited to, the following:

- Education and experience**
- Training**
- Results of any qualification examinations.**

(d) NDT personnel shall be certified in accordance with the recommendations of ASNT Recommended Practice SNT-TC-1A for the test method used.

(e) Records of certified NDT personnel shall be maintained at the job site. These records shall include the results of certification tests, the agency and person granting certification, and the date of certification. The Company may require recertification of NDT personnel if any question arises about their ability to interpret NDT test results.

(f) As a minimum, NDT personnel shall be required to recertify every three years.

804.7.4 NDT Personnel Requirements

(a) At least one Level II NDT technician shall be assigned to each NDT testing unit. As a minimum, Level II personnel shall be required to interpret NDT test results.

(b) While performing nondestructive testing of welds, NDT personnel shall also report arc burns and other pipe flaws. In addition, anything that interferes with the NDT interpretation, i.e., excessive weld buildup, internal weld spatter, foreign material in pipe, etc., shall be reported by NDT personnel to the Company, and a visual inspection will be required as applicable.

(c) NDT personnel shall perform all work under this Specification in an orderly and expeditious manner while maintaining quality at all times. Reasonable time will be provided for the performance of the work. NDT personnel will coordinate their activities with other construction operations as requested by the Company.

(d) NDT Contractor personnel shall immediately notify the Company of any decline in weld quality and/or repetition of marginally acceptable weld discontinuities.

(e) NDT personnel shall keep a copy of all daily NDT reports with their unit for the duration of their assignment on the job.

(e) §195.266 Construction Records

A complete record that shows the following must be maintained by the operator involved for the life of each pipeline facility:

- (a) The total number of girth welds and the number nondestructively tested, including the number rejected and the disposition of each rejected weld.**
- (b) The amount, location and cover of each size of pipe installed.**
- (c) The location of each crossing of another pipeline.**
- (d) The location of each buried utility crossing.**
- (e) The location of each overhead crossing.**
- (f) The location of each valve and corrosion test station.**

Procedures did not require construction records, such as welding test results, be kept for the life of the pipeline.

Section 603 of Jayhawk's revised Operations and Maintenance Manual states:

603 – CONSTRUCTION RECORDS

This section requires that the following records must be maintained by the operator for the life of the pipeline facility. The Senior Staff Engineer or his designee is responsible for developing these records.

- ***Total number of girth welds and the number nondestructively tested, including the number rejected and the disposition of each rejected weld.***
- ***The amount, location; and cover of each size of pipe installed.***
- ***The location of each crossing of another pipeline***
- ***The location of each buried utility crossing.***
- ***The location of each overhead crossing.***
- ***The location of each valve and corrosion test station.***

- (f) §195.302 General requirements.
- (a) Except as otherwise provided in this section and in §195.305(b) , no operator may operate a pipeline unless it has been pressure tested under this subpart without leakage. In addition, no operator may return to service a segment of pipeline that has been replaced, relocated, or otherwise changed until it has been pressure tested under this subpart without leakage.

Procedures did not include the requirement to pressure test new pipe.

Section 816.3 of Jayhawk's revised Operations and Maintenance Manual states:

816.3 - New Pipe

Any new pipe must be manufactured in accordance with the latest approved edition of API 5L and any additional Jayhawk Pipe Specifications. New pipe must be pressure tested before it can be placed in service (see section 819 of this manual).

- (g) §195.310 Records.
- (a) A record must be made of each pressure test required by this subpart, and the record of the latest test must be retained as long as the facility tested is in use.

Procedures did not include the requirement to retain the latest pressure record for the life of the facility.

Section 819.16 of Jayhawk's revised Operations and Maintenance Manual states:

819.16 - Records

(a) Refer to Appendix D-14 for the form to be used for recording hydrostatic test information

(b) A written record must be made of each required hydrostatic test and the record of the latest test must be retained as long as the facility tested is in use.

- (h) §195.403 Emergency Response Training.
 - (b) At the intervals not exceeding 15 months, but at least once each calendar year, each operator shall:
 - (2) Make appropriate changes to the emergency response training program as necessary to ensure that it is effective.

Procedures did not include the requirement to, at intervals not exceeding 15 months, but at least once each calendar year, make appropriate changes to the emergency response training program as necessary to ensure that it is effective

Section 400 of Jayhawk's revised Operations and Maintenance Manual states:

400 – EMERGENCY OPERATIONS

This Procedure specifies the emergency operations procedures for Jayhawk Pipeline systems. The actions of operations personnel in response to an emergency condition are referred to as emergency operations.

At intervals not exceeding 15 months, but at least once each calendar year Jayhawk shall review its emergency response training program and make appropriate changes as necessary to ensure it is effective.

- (i) §195.404 Maps and Records.
 - (c) Each operator shall maintain the following records for the periods specified:
 - (3) A record of each inspection and test required by this subpart shall be maintained for at least 2 years or until the next inspection or test is performed, whichever is longer.

Procedures did not include the requirement to maintain a record of each inspection and test required by Subpart F for at least 2 years or until the next inspection or test is performed, whichever is longer.

Section 605 of Jayhawk's revised Operations and Maintenance Manual states:

605 – OPERATION AND MAINTENANCE RECORDS

(a) A record of each inspection and test required by Subpart F of §195 shall be maintained for at least 2 years or until the next inspection or test is performed, whichever is longer.

(b) The required records include the location and identification of the following pipeline facilities:

- **Breakout tanks.**
- **Pump stations.**
- **Scraper and sphere facilities.**
- **Pipeline valves.**
- **Cathodically protected facilities.**
- **Detection of abnormal operating conditions by monitoring pressure, temperature, flow or other appropriate operational data and transmitting the data to an attended location (SCADA records at the Control Center).**
- **Rights of way.**
- **The diameter, grade, type, and nominal wall thickness of all pipe**

(c) Each operator shall maintain for at least 3 years daily operating records that indicate:

- **The discharge pressure at each pump station**
- **Any emergency or abnormal operation to which the procedures under 195.402 apply**

- (j) §195.406 Maximum operating pressure.
- (b) No operator may permit the pressure in a pipeline during surges or other variations from normal operations to exceed 110 percent of the operating pressure limit established under paragraph (a) of this section. Each operator must provide adequate controls and protective equipment to control the pressure within this limit.

Procedures did not include the requirement to provide adequate controls and protective equipment to prevent the pressure from exceeding 110 percent of the maximum operating pressure limit.

Section 230.2 of Jayhawk's revised Operations and Maintenance Manual states:

230.2 – Maximum Operating Pressures (MOP)

The maximum operating pressures have been established based on pipe design limitations and historical operating data. See Appendix B -1 for a listing of MOP values.

The operating pressure during surges or other variations from normal operations in the pipelines operated by Jayhawk may not be permitted to exceed 110% of the maximum operating pressure. Controls have been incorporated into the system to prevent pressure variations from exceeding 110% of the maximum operating pressure.

- (k) §195.428 Overpressure safety devices and overfill protection systems.
- (d) After October 2, 2000, the requirements of paragraphs (a) and (b) of this section for inspection and testing of pressure control equipment apply to the inspection and testing of overfill protection systems.

Procedures did not include any of the requirements for inspecting and testing of overfill protection systems.

Section 203.5 of Jayhawk's revised Operations and Maintenance Manual states:

203.5.3 Overfill Protection Systems

After October 2, 2000, each overfill protection system shall be tested at intervals not to exceed 15 months but at least once each calendar year. Each test must determine that the device is functioning properly, is in good mechanical condition, and is adequate from the standpoint of capacity and reliability of operation for the service in which it is used. These tests must be documented and should also ensure that the monitoring systems for these devices also functions properly.

- (l) §195.436 Security of facilities.
Each operator shall provide protection for each pumping station and breakout tank area and other exposed facility (such as scraper traps) from vandalism and unauthorized entry.

Procedures did not include the requirement for each pumping station and breakout tank area and other exposed facility to have protection from vandalism and unauthorized entry.

Section 212 of Jayhawk's revised Operations and Maintenance Manual states:

212 – SECURITY OF FACILITIES

212.1 General

It is Jayhawk's policy to provide protection from vandalism and unauthorized entry for each pumping station, breakout tank area and other exposed facility (such as scraper traps). Normally this protection is provided by fencing and locks. Typical fencing consists of six-foot chain link fence with three strands of barbed wire over that. Locking devices which prevent operation of equipment are required if the pipeline facility is not within a secured fenced area.

All personnel are responsible for helping to insure that Jayhawk Pipeline facilities are secure from unauthorized entry. The most basic means of security is the padlock. All Jayhawk employees are issued a Jayhawk key. This enables them to enter facilities to perform their operation and maintenance tasks. All pump stations, breakout tank facilities and scraper traps are surrounded by chain link fence. A post and rail type fence to prevent livestock from using the piping as a rub encloses some remote block valves. The valve itself is secured by a length of chain that is woven through the valve handle. This chain is secured with a lock. Access to buildings is also secured by the use of a lock.

- (m) §195.440 Public Awareness
 - (g) The program must be conducted in English and in other languages commonly understood by a significant number and concentration of the non-English speaking population in the operator's area.

Procedures did not include the requirement for the public awareness program to be conducted in English and in other languages commonly understood by a significant number and concentration of the non-English speaking population in the operator's area.

Section 4.1 in Jayhawk's public awareness plan states:

Criteria for Selection: Media selection requires an evaluation of the target audiences to determine the most appropriate methods. First, the media chosen must meet the needs of the audience. This must include an evaluation of the language needs of the target audience, and the delivery of the message in languages other than English when a significant portion of the audience requires it. Then, the media selection must support the intent and content of the

communication. Finally, the input of API 1162 was considered. Questions to think about in this evaluation include:

- 1) Is the audience more rural or urban?**
- 2) In urban areas, is the population density higher or lower?**
- 3) Are there other sensitive receptors in the area?**
- 4) What is the receptivity of the target audience to the various methods?**
- 5) What is the vulnerability of the target audience?**
- 6) What is a selected audience's capability to receive/view a message?**
- 7) Should the type of pipeline/facility play a role in the media selection?**

- (n) §195.442 Damage Prevention Program
 - (c) The damage prevention program required by paragraph (a) of this section must, at a minimum:
 - (1) Include the identity, on a current basis of persons who normally engage in excavation activities in the area in which the pipeline is located.
 - (4) If the operator has buried pipelines in the area of excavation activity, provide for actual notification of persons who give notice of their intent to excavate of the type of temporary markings to be provided and how to identify the markings.
 - (6) Provide as follows for inspection of pipelines that an operator has reason to believe could be damaged by excavation activities:
 - (i) The inspection must be done as frequently as necessary during and after the activities to verify the integrity of the pipeline; and

Procedures did not include the requirement for the damage prevention program to include the identity, on a current basis of persons who normally engage in excavation activities in the area in which the pipeline is located, per §195.442(c)(1).

Procedures did not include the requirement for the damage prevention program to include the requirement that, if the operator has buried pipelines in the area of excavation activity, the operator is to provide for actual notification of persons who give notice of their intent to excavate of the type of temporary markings to be provided and how to identify the markings, per §195.442(c)(4).

Procedures did not include the requirement for the damage prevention program to include the requirement that inspections must be done as frequently as necessary during and after the excavation activities to verify the integrity of the pipeline per, §195.442(c)(6)(i).

Section 208 of Jayhawk's revised Operations and Maintenance Manual states:

208 – THIRD PARTY DAMAGE PREVENTION

208.1 General.

Jayhawk Pipeline participates in the One-Call systems in each area that it operates pipelines. Jayhawk continues to participate in One-Call systems for abandoned lines on a case-by-case basis so that the integrity of the ROW can be maintained. As part of Jayhawk's damage prevention program, the identity on a current basis of persons who normally engage in excavation activities in areas where the pipeline is located will be established. For additional information on Jayhawk's public awareness program for excavators, refer to Jayhawk Pipeline's Public Awareness Program Manual which is incorporated by reference and made a part hereof.

208.2 Excavation Activities.

(a) Each district office is responsible for receiving notices of excavation and construction from the appropriate state One-Call Systems, contractors, landowners, concerned citizens, facility owners, lease operators and air patrols for the pipelines in their district.

(b) The assigned employee will first determine whether a company facility is in the area of excavation. If a company facility is in the area of excavation the assigned employee will notify the excavator, advise the excavator not to start work until the facility is marked by the company and arrange a meeting at the site to determine if the excavation will encroach near Jayhawk's facility. If Jayhawk is involved, he will advise the excavator how and when the facilities will be marked. The assigned employee should then determine the location and depth of the company facility and mark the location using paint, ribbons, flags, stakes, etc. The employee should follow the American National Standards Institute standards for marking underground facilities (see table below). Inform the excavator of the location and depth of the company facility, description of the markings, the type of facility, safety precautions, clearance requirements and the excavation procedure and schedule. The Jayhawk representative should advise the excavator that the marking represents only the approximate horizontal position of the facilities and that the facilities should be exposed by hand excavation or by spotting bars to verify the actual horizontal and vertical location prior to the use of powered excavating equipment.

COLOR CODE FOR MARKING UNDERGROUND FACILITIES

<i>If the Underground Facility is:</i>	<i>Then it should be Marked:</i>
<i>Petroleum/Natural Gas</i>	<i>Yellow</i>
<i>Communications</i>	<i>Orange</i>
<i>Electric</i>	<i>Red</i>
<i>Water</i>	<i>Blue</i>
<i>Sewer</i>	<i>Green</i>

(c) The Jayhawk representative will check to be sure that nearby pipeline marker signs are in place and easily visible.

(d) Digging with powered equipment will be halted at a location 18 inches above the Jayhawk facility. The pipe position will then be confirmed by hand digging or probing before proceeding with further excavation activities.

(e) An inspection is required anytime a company facility is in an area of excavation. Factors to consider when deciding how often to inspect the site (periodically or full-time) include the distance between the company facility and the excavation, potential for an incident, potential for damage to the company facility, type of excavating equipment being used and the duration of the excavation project. It is recommended that a Jayhawk representative be present at the site where excavation is being performed until all powered excavating equipment is well clear of Jayhawk's facilities and until Jayhawk's facility is backfilled. The assigned employee should assure that proper procedures are being followed, that there is no damage to the company facility or its coating and that there is no interference with the cathodic protection system. All inspections of exposed pipe must be documented (see Appendix D). All crossings of buried utilities and foreign pipelines must also be documented and forwarded to McPherson (these records should include the type and location of the crossing and must be kept for the life of the pipeline).

(f) Any maps furnished to the excavator to assist in locating underground facilities should be marked with a note such as "Not responsible for accuracy, verify horizontal and vertical location by hand digging."

(o) §195.555 What are your qualifications for supervisors?

You must require and verify that supervisors maintain a thorough knowledge of that portion of the corrosion control procedures established under Sec. 195.402(c)(3) for which they are responsible for insuring compliance.

Procedures did not include the requirement and verification that supervisors maintain a thorough knowledge of that portion of the corrosion control procedures for which they are responsible for insuring compliance.

Section 700 of Jayhawk's revised Operations and Maintenance Manual states:

700 – CORROSION CONTROL

(a) This section sets out the corrosion control procedures and program used by Jayhawk Pipeline to implement an effective corrosion control program and to comply with all applicable pipeline safety regulations. See Appendix D for forms to be used for corrosion records. Refer to Section 600 of this manual for record retention time and records location.

(b) The program is administered under the supervision of Jayhawk's Operations Manager or his designee and is implemented by Jayhawk Cathodic Protection (CP) Technicians and contract personnel. CP Technicians shall be qualified by NACE training, on the job training, and experience before being assigned to operate the cathodic protection system. See the Jayhawk Operator Qualification Manual for specific covered tasks and their qualifications. Supervisors of CP technicians shall maintain a thorough knowledge of that portion of the corrosion control procedures for which they are responsible. Verification of this knowledge is achieved through work experience and occasional attendance at industry sponsored schools and training events.

(c) These procedures prescribe the minimum requirements for corrosion control for; buried and submerged pipe, aboveground piping, internal corrosion, and breakout tanks. The procedures are applicable to new and existing installations.

- (p) §195.557 Which pipelines must have coating for external corrosion control?
Except bottoms of aboveground breakout tanks, each buried or submerged pipeline must have an external coating for external corrosion control if the pipeline is—
- (a) Constructed, relocated, replaced, or otherwise changed after the applicable date in Sec. 195.401(c), not including the movement of pipe covered by Sec. 195.424; or

Procedures did not include the requirement for each buried or submerged pipeline to have an external coating for external corrosion control.

Section 701.4 of Jayhawk's revised Operations and Maintenance Manual states:

701.4 Buried Pipe Coating

(a) Except bottoms of aboveground breakout tanks, each buried pipeline must have an external coating for external corrosion control if the pipeline is constructed, relocated, replaced or otherwise changed after:

- **March 31, 1970; for interstate hazardous liquid pipelines (not including a low-stress pipeline)**
- **October 20, 1985; for intrastate hazardous liquid pipelines (not including low-stress pipeline)**
or is converted under §195.5 (Section 216) and has an external coating that substantially meets the criteria described below, or is a pipeline that is relocated, replaced or substantially altered. The coating material used to control external corrosion must:
 - **Be designed to mitigate corrosion of the buried or submerged pipe**
 - **Have sufficient adhesion to the metal surface to prevent under film migration of moisture**
 - **Be sufficiently ductile to resist cracking**
 - **Have enough strength to resist damage due to handling and soil stress**
 - **Support any supplemental cathodic protection; and**
 - **If the coating is an insulating type, have low moisture absorption and provide high electric resistance.**

(q) §195.559 What coating material may I use for external corrosion control?

Coating material for external corrosion control under Sec. 195.557 must—

- (a) Be designed to mitigate corrosion of the buried or submerged pipeline;
- (b) Have sufficient adhesion to the metal surface to prevent under film migration of moisture;
- (c) Be sufficiently ductile to resist cracking;
- (d) Have enough strength to resist damage due to handling and soil stress;
- (e) Support any supplemental cathodic protection; and
- (f) If the coating is an insulating type, have low moisture absorption and provide high electrical resistance.

Procedures did not include the requirements for the coating material used for external corrosion control per §195.559 (a), (b), (c), (d), (e), and (f).

See Section 701.4 of Jayhawk's revised Operations and Maintenance Manual above.

- (q) §195.561 When must I inspect pipe coating used for external corrosion control?
- (a) You must inspect all external pipe coating required by Sec. 195.557 just prior to lowering the pipe into the ditch or submerging the pipe.
 - (b) You must repair any coating damage discovered.

Procedures did not include the requirement for inspecting pipe external coating just prior to lowering the pipe into the ditch or submerging the pipe and repairing any coating damage discovered.

Section 816.9 of Jayhawk's revised Operations and Maintenance Manual states:

816.10 - Lowering-In

- (a) **Sufficient equipment shall be used to safely lower the pipe in the ditch and prevent the pipe from jumping off the skids and damaging the coating or pipe. Cradles with soft rollers shall be used that do not damage the pipe coating. If slings are used they should be made of material such as nylon that does not damage pipe or coating.**
- (b) **The pipe shall be inspected for coating holidays before being placed in the ditch. A holiday detector should be located just behind the last lowering-in piece of equipment. All coating holidays must be repaired before placing the pipe in the ditch. A holiday detector ("jeep") suitable for the type of coating shall be used and the voltage shall be set in accordance with at least the minimum values for the coating thickness as recommended by the National Association of Pipe Coating Applicators.**

- (r) §195.561 Do I have to examine exposed portions of buried pipelines?
- Whenever you have knowledge that any portion of a buried pipeline is exposed, you must examine the exposed portion for evidence of external corrosion if the pipe is bare, or if the coating is deteriorated. If you find external corrosion requiring corrective action under Sec. 195.585, you must investigate circumferentially and longitudinally beyond the exposed portion (by visual examination, indirect method, or both) to determine whether additional corrosion requiring remedial action exists in the vicinity of the exposed portion.

Procedures did not include the requirements for, if you find external corrosion requiring corrective action, investigating circumferentially and longitudinally beyond the exposed portion (by visual examination, indirect method, or both) to determine whether additional corrosion requiring remedial action exists in the vicinity of the exposed portion.

Section 708.2 (b) of Jayhawk's revised Operations and Maintenance Manual states:

(a) When buried piping is exposed, it shall be inspected for any evidence of external corrosion. Do not remove pipe coating for purposes of this inspection if the coating is in good condition. If general corrosion or localized corrosion pitting is found, Jayhawk shall investigate circumferentially and longitudinally beyond the exposed portion (by visual examination, indirect method, or both) to determine whether additional corrosion requiring remedial action exists in the vicinity of the exposed portion.

- (s) §195.573 What must I do to monitor external corrosion control?
 - (a) Protected pipelines. You must do the following to determine whether cathodic protection required by this subpart complies with Sec. 195.571:
 - (2) Identify before December 29, 2003 or not more than 2 years after cathodic protection is installed, whichever comes later, the circumstances in which a close-interval surveyor comparable technology is practicable and necessary to accomplish the objectives of paragraph 10.1.1.3 of NACE Standard RP0169-96 (incorporated by reference, see Sec. 195.3).
 - (d) Breakout tanks. You must inspect each cathodic protection system used to control corrosion on the bottom of an aboveground breakout tank to ensure that operation and maintenance of the system are in accordance with API Recommended Practice 651. However, this inspection is not required if you note in the corrosion control procedures established under Sec. 195.402(c)(3) why compliance with all or certain operation and maintenance provisions of API Recommended Practice 651 is not necessary for the safety of the tank.

Procedures did not include the requirements for identifying, before December 29, 2003 or not more than 2 years after cathodic protection is installed, whichever comes later, the circumstances in which a close-interval surveyor comparable technology is practicable and necessary to accomplish the objectives of paragraph 10.1.1.3 of NACE Standard RP0169-96.

Procedures did not include the requirements for providing cathodic protection systems for use in controlling corrosion on the bottom of an aboveground breakout tank per §195.573(d).

Sections 707.5; 703 of Jayhawk's revised Operations and Maintenance Manual states:

707.5 Close Interval Survey (CIS)

(a) Since only a small fraction of the pipeline length provides the potentials that are measured at permanent test stations during the annual survey, a close interval survey (CIS) may be necessary to assess the effectiveness of the CP over the entire length of the pipeline.

(b) Regulations require that Jayhawk must identify before 12/29/2003 or not more than 2 years after cathodic protection is installed, whichever comes later, the circumstances in which a CIS or comparable technology is practicable and necessary to accomplish the objectives of § 10.1.1.3 of NACE Standard RP0169-02. The NACE Standard states that, "the CIS should be conducted to (a) assess the effectiveness of the cathodic protection system; (b) provide baseline operating data; (c) locate areas of inadequate protection levels; (d) identify locations likely to be adversely affected by construction, stray currents, or other unusual environmental conditions; or (e) select areas to be monitored periodically." Therefore, for any segment that does not have a CIS before the required dates, Jayhawk must technically justify why it won't perform a CIS as called for in this standard. The factors that can be used to make this justification include:

- Condition of the pipe coating**
- No leak history due to corrosion**
- Results of ILI**
- Results of buried pipe inspections**
- Presence of IR error free test stations**

703 – CORROSION CONTROL FOR BREAKOUT TANKS

703.1 General

(a) Cathodic protection shall be installed to protect breakout tank bottoms for tanks constructed, relocated, replaced, or otherwise changed after:

- March 31, 1970; for interstate hazardous liquid pipelines (not including a low-stress pipeline)**
- October 20, 1985; for intrastate hazardous liquid pipelines (not including low-stress pipeline)**

The cathodic protection must be in operation not later than 1 year after the breakout tank is constructed, relocated, replaced, or otherwise changed as applicable by the above dates. See Section

701.2 (e) for cathodic protection requirements for unprotected breakout tanks.

(b) This requirement applies to tanks with greater than 500 barrel capacity built to API Standard 620, or API Standard 650 (or its predecessor Standard 12C).

(c) When cathodic protection is installed on breakout tanks it shall be done in accordance with API Recommended Practice (RP) 651. However, if it is not necessary for the safety of the tank, all or certain provisions of API RP 651 need not be complied with. If this provision is to be used, a technical justification shall be written by the Operations Manager or his designee to justify how the safety of the tank can be assured without either all, or parts of API RP 651, not being complied with.

- (t) §195.575 Which facilities must I electrically isolate and what inspections, tests, and safeguards are required?
 - (a) You must electrically isolate each buried or submerged pipeline from other metallic structures, unless you electrically interconnect and cathodically protect the pipeline and the other structures as a single unit.
 - (b) You must install one or more insulating devices where electrical isolation of a portion of a pipeline is necessary to facilitate the application of corrosion control.
 - (c) You must inspect and electrically test each electrical isolation to assure the isolation is adequate.
 - (d) If you install an insulating device in an area where a combustible atmosphere is reasonable to foresee, you must take precautions to prevent arcing.
 - (e) If a pipeline is in close proximity to electrical transmission tower footings, ground cables, or counterpoise, or in other areas where it is reasonable to foresee fault currents or an unusual risk of lightning, you must protect the pipeline against damage from fault currents or lightning and take protective measures at insulating devices.

Procedures did not include the requirements for which facilities must be electrically isolated and what inspections, tests, and safeguards are required per §195.575 (a), (b), (c), (d), and (e).

Section 701.6 of Jayhawk's revised Operations and Maintenance Manual states:

701.6 Insulating Devices

(a) Insulating devices, such as insulating flanges conduit unions and casing spacers, are used to isolate parts of the system under cathodic protection from other underground facilities or equipment electrically connected to the pipeline. If protection of the other underground facilities is not intended, significant cathodic protection current can be lost unless preventive measures are taken. Typical locations for the installation of insulating devices include but are not limited to:

- **Points where system ownership changes.**
- **Junction of main line piping and station piping.**
- **Where pipe passes through reinforced concrete.**
- **Points where electrical conduit is connected to a device attached to the pipeline.**
- **Pipe supports.**
- **Where more than one type of cathodic protection system is used.**
- **Where it may help in controlling stray earth currents.**
- **Cased crossings.**

(b) Extreme care should be taken when installing an insulation device in an area where a combustible atmosphere could reasonably be expected to exist. If such a condition could exist, take precautions to prevent arcing.

(c) If other metallic structures, such as pipe supports, are not isolated from the pipeline then the other metallic structures and the pipeline shall be cathodically protected as a single unit.

(d) Pipelines that are in close proximity to electrical transmission tower footings, ground cables or counterpoise, or in other areas where it is reasonable to foresee fault currents or an unusual risk of lightning, must be protected against damage from fault currents or lightning and protective measures must be taken at insulating devices.

(e) Each isolation device shall be inspected and electrically tested to assure the isolation is adequate.

(f) Insulating devices shall be installed and maintained in accordance with NACE Standard RP0286-02.

(u) §195.577 What must I do to alleviate interference currents?

- (a) For pipeline exposed to stray currents, you must have a program to identify, test for, and minimize the detrimental effects of such currents.
- (b) You must design and install each impressed current or galvanic anode system to minimize any adverse effects on existing adjacent metallic structures.

Procedures did not include the requirements for what must be done to alleviate interference currents per §195.577(a) and (b).

Section 701.7 of Jayhawk's revised Operations and Maintenance Manual states:

701.7 Stray Current Interference.

(a) Cathodic protection systems may adversely affect neighboring structures by accelerating corrosion. For pipelines exposed to stray currents, Jayhawk must have a program to identify, test for, and minimize the detrimental effects of such currents. The system designer shall take this into consideration so as to minimize interference. Rectifier ground bed placement near a foreign structure will be harmful and this needs to be carefully considered when selecting the ground bed location. Interference also occurs at locations where two or more pipelines cross; where they are parallel to each other; near HVDC transmission systems; and, in some cases, near high voltage AC transmission systems (See also Section 701.3 (b))

(b) During the annual CP potential survey all locations of current interference are monitored. Additional possible sources of interference current should be identified. During the inspection, personnel should be aware of electrical or physical conditions that could indicate interference from a neighboring source. If such an area is identified, electrical tests must be conducted within six months to determine the extent of interference if any, and take appropriate corrective action.

(c) For new construction of facilities, including pipe replacements, the design and installation of each impressed current or galvanic anode system must be done in such a way so as to minimize any adverse effects on existing adjacent metallic structures. In addition the CP Technician and Engineer will be responsible for notifying owners of underground structures to be crossed by new

construction. The notification will give the location, type, and size of cathodic protection installation contemplated. A drawing showing the route of the new construction will also be furnished. Owners of foreign structures will be invited to participate in joint interference testing. Foreign structure owners will be asked in the notification to advise of any other crossings unknown to the CP Technician.

(d) Test stations will be installed, where practical, at all foreign structure crossings. See Section 701.5.1 for installation procedures and Appendix D-20 for a detailed drawing of a test station installation at a foreign line crossing.

(e) Tests will be conducted to determine the extent of interference, if any, and the need for a drainage bond or other means for eliminating the interference. If needed, drainage bonds will be sized to restore the pipe-to-soil potential to its original value. Interference data will be recorded and forwarded to the Operations manager. See Appendix D-15 for the form to be used for interference testing.

(f) When pipe replacements are installed by either excavation or directional drilling the pipe being replaced should be taken up whenever possible. When removal of the old pipe is impossible or an old casing cannot be removed the separation of the old pipe to the new pipe shall be at least 5 feet. All pipe that is less than 5 feet away from the new pipe at each end of the pipe replacement shall also be removed. These practices reduce the possibility of electrical shielding of the cathodic current to the new pipe.

(v) §195.579

What must I do to mitigate internal corrosion?

- (c) Removing pipe. Whenever you remove pipe from a pipeline, you must inspect the internal surface of the pipe for evidence of corrosion. If you find internal corrosion requiring corrective action under Sec. 195.585, you must investigate circumferentially and longitudinally beyond the removed pipe (by visual examination, indirect method, or both) to determine whether additional corrosion requiring remedial action exists in the vicinity of the removed pipe.

Procedures did not include the requirements for what must be done to mitigate internal corrosion by inspecting the internal surface of the pipe whenever a piece is removed and, if you find internal corrosion, you must investigate circumferentially and longitudinally beyond the removed pipe (by visual examination, indirect method, or both) to determine whether additional corrosion requiring remedial action exists in the vicinity of the removed pipe.

Section 704.5 of Jayhawk's revised Operations and Maintenance Manual states:

704.5 Visual Inspection for Internal Corrosion.

(a) Whenever pipe is removed from the pipeline, or the internal surface of the pipeline is exposed to view, the internal surface must be inspected for evidence of internal corrosion.

(b) If internal corrosion requiring corrective action is identified, investigations must be performed circumferentially and axially beyond the removed pipe. The investigation may include visual examination, indirect inspection method, or both to determine whether additional corrosion requiring remedial actions (i.e., the remaining wall thickness is less than that required for the maximum operating pressure) exists in the vicinity of the removed pipe.

(c) The results of all internal corrosion inspections shall be recorded and maintained for the life of the pipeline.

(w) §195.583

What must I do to monitor atmospheric corrosion control?

(a) You must inspect each pipeline or portion of pipeline that is exposed to the atmosphere for evidence of atmospheric corrosion, as follows:

If pipeline is located: Then the frequency of inspection is:

Onshore At least once every 3 calendar years, but with intervals not exceeding 39 months.

Offshore At least once each calendar year, but with intervals not exceeding 15 months.

(b) During inspections you must give particular attention to pipe at soil-to-air interfaces, under thermal insulation, under disbonded coatings, at pipe supports, in splash zones, at deck penetrations, and in spans over water.

(c) If you find atmospheric corrosion during an inspection, you must provide protection against the corrosion as required by Sec. 195.581.

Procedures did not include the requirements for what must be done to monitor atmospheric corrosion control per §195.583 (a), (b), and (c).

Section 707.7 of Jayhawk's revised Operations and Maintenance Manual states:

707.7 Aboveground Piping (Atmospheric Corrosion).

Inspections of above ground piping shall be conducted by the appropriate Utility Gauger/Station Operator or other qualified personnel at least once every 3 calendar years, but with intervals not exceeding 39 months. Inspections shall include the pipe at soil-to-air interfaces, under thermal insulation, under disbonded coatings, at pipe supports and for electric isolation. Evidence of external corrosion shall be investigated. Evidence could include stained paint, chipped or disbonded coating. If corrosion is found Jayhawk shall provide protection against further corrosion. If pitting is found refer to Section 802.1 for procedures on corrosion evaluation.

- (x) §195.589 What corrosion control information do I have to maintain?
- (a) You must maintain current records or maps to show the location of—
 - (1) Cathodically protected pipelines;
 - (2) Cathodic protection facilities; including galvanic anodes, installed after Jayhawk 28, 2002; and
 - (3) Neighboring structures bonded to cathodic protection systems.
 - (b) Records or maps showing a stated number of anodes, installed in a stated manner or spacing, need not show specific distances to each buried anode.
 - (c) You must maintain a record of each analysis, check, demonstration, examination, inspection, investigation, review, survey, and test required by this subpart in sufficient detail to demonstrate the adequacy of corrosion control measures or that corrosion requiring control measures does not exist. You must retain these records for at least 5 years, except that records related to Secs. 195.569, 195.573(a) and (b), and 195.579(b)(3) and (c) must be retained for as long as the pipeline remains in service.

Procedures did not include the requirements for what corrosion control information must be maintained per §195.589 (a), (b), and (c).

Sections 606 (a) & 606 (b) of Jayhawk's revised Operations and Maintenance Manual states:

606 – CATHODIC PROTECTION RECORDS

(a) Current records or maps must be maintained that show the location of:

- **Cathodically protected pipelines;**

- **Cathodic protection facilities, including galvanic anodes, installed after January 28, 2002; and**
- **Neighboring structures bonded to cathodic protection systems.**
- **Records or maps showing a stated number of anodes, installed in a stated manner or spacing, need not show specific distances to each buried anode.**

(b) A record of each analysis, check, demonstration, examination, inspection, investigation, review, survey, and test required by Subpart H in sufficient detail to demonstrate the adequacy of corrosion control measures or that corrosion requiring control measures does not exist. These records must be maintained for at least 5 years, except that records related to §§ 195.569 (examination of exposed pipe), 195.573(a) (protected pipelines) and (b) (unprotected pipe), and 195.579(b)(3) (corrosion coupon examination) and (c)(internal inspection of removed pipe) must be retained for as long as the pipeline remains in service.

2. §195.402 Procedural manual for operations, maintenance, and emergencies.
 - (a) General. Each operator shall prepare and follow for each pipeline system a manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies. This manual shall be reviewed at intervals not exceeding 15 months, but at least once each calendar year, and appropriate changes made as necessary to insure that the manual is effective. This manual shall be prepared before initial operations of a pipeline commence, and appropriate parts shall be kept at locations where operations and maintenance activities are conducted.

Procedures did not include the requirement to review the manual at intervals not exceeding 15 months, but at least once each calendar year, and to make appropriate changes as necessary to insure that the manual is effective.

Section 201 of Jayhawk's revised Operations and Maintenance Manual states:

201 – MANUAL CONTENT AND REVIEW

(a) This manual contains information required for compliance with 49 CFR Part 195 for the pipeline systems owned and/or operated by Jayhawk Pipeline.

(b) Daily operating records are maintained at the McPherson Control Center located at McPherson, Kansas.

(c) The Operations Manager is responsible for insuring that each manual required by Part 195 is reviewed each year at intervals not to exceed 15 months. The Operations Manager will be responsible for making any changes needed to keep the manuals current and to ensure that the manual and procedures are effective. Jayhawk Pipeline's General Manager will approve all changes to the manual.

3. §195.402 Procedural manual for operations, maintenance, and emergencies.
- (c) Maintenance and normal operations. The manual required by paragraph (a) of this section must include procedures for the following to provide safety during maintenance and normal operations:
- (6) Minimizing the potential for hazards identified under paragraph (c) (4) of this section and the possibility of recurrence of accidents analyzed under paragraph (c) (5) of this section.
 - (7) Starting up and shutting down any part of the pipeline in a manner designed to assure operation within the limits prescribed by paragraph §195.406, consider the hazardous liquid or carbon dioxide in transportation, variations in altitude along the pipeline, and pressure monitoring and control devices.
 - (11) Minimizing the likelihood of accidental ignition of vapors in areas near facilities identified under paragraph (c) (4) of this section where the potential exists for the presence of flammable liquids or gases.
 - (14) Taking adequate precautions in excavated trenches to protect personnel from the hazards of unsafe accumulations of vapor or gas, and making available when needed at the excavation, emergency rescue equipment, including a breathing apparatus and a rescue harness and line.

Procedures did not include the requirement to minimize the potential for hazards and the possibility of recurrence of accidents per §195.402(c)(6).

Sections 230.12; 230.10; 230.12; 205.7 of Jayhawk's revised Operations and Maintenance Manual states:

230.12 – Immediate Response Areas

This Procedure addresses the immediate response areas near the Company's pipeline facilities, including the criteria used to determine the extent of these areas and the requirements for designating these areas on Company records. The District Superintendent will work with the Operations Manager to determine the limits of immediate response areas in accordance with the requirements of this Procedure and documenting the description of these areas in the Operations & Maintenance Manual Appendix A. The district Superintendent along with employees responding to an incident in an immediate response area must make every effort to minimize the potential hazards associated with the immediate response area.

(a) Immediate response areas are those areas adjacent to pipeline facilities (pipelines, tanks, and stations) that require an immediate response by Company personnel to prevent hazards to the public if the facility fails or malfunctions.

(b) The following guidelines shall be used to evaluate each pipeline system operated by the Company. Areas that are determined to meet any of the criteria shall be classified as immediate response areas.

- **Ignition Sources Near the Facility**

For liquids in the pipeline that are either flammable or combustible (flash point below 200 degrees Fahrenheit), the evaluation shall consider whether an ignition source (flame, hot surface, electrical, or frictional sparks) is close enough to the facility to cause a fire hazard when liquid is accidentally released from the facility. If, because of topography or man-made features, the liquid is likely to flow away from the area immediately adjacent to the facility, the consideration shall include ignition sources located near the path of the flowing liquid and associated vapors.

For highly volatile liquids (vapor pressure exceeding 40 p.s.i.a. at 100 degrees Fahrenheit), such as LPG, propane, and butane, the evaluation shall consider whether an ignition source is close enough to the facility to cause ignition of the vapor cloud if the liquid is accidentally released from the facility. Since the vapors are heavier than air, topography, trenches, sewers, and wind must be considered when an evaluation of the potential involvement of a nearby ignition source is made.

- **Proximity of People**

The evaluation must consider the proximity of people of the facility. Areas of concern are residential, business, and industrial areas and any other area where people congregate, such as a campground. Areas where people are likely to be affected by accidental release of the product from a facility, either by coming in contact with the product, needing evacuation, or being a potential ignition source, should be considered an immediate response area.

- **Crossings**

A pipeline crossing of a navigable waterway shall be designated an immediate response area.

- **Pollution of Waterways**

Consideration shall be given to the potential for the product to pollute waterways if the facility fails or malfunctions. Waterways include both surface and subsurface water.

- **Documentation**

Locations near the Company's facilities that have been designated as immediate response areas shall be included in Appendix A for the appropriate pipeline system. This list shall clearly delineate the area, using either marked-up maps or recognizable geographical or man-made features (rivers, lakes, highways, county lines, property lines, city limits, pump stations, bridges, overhead power lines, etc.) that form the limits of the area.

230.10 – Planned Startup Procedures

(a) The start up of these lines will be coordinated by the Control Center and Oil Movements Supervisor. A verbal or written order will be issued to operations personnel advising time of start up and flow rates. Control Center will notify field operations personnel before any segment of the system is started. Any manually controlled block valves must be opened before starting any system.

(b) The Control Center will monitor pressures and flow rates on start-up and ensure that all pressures remain within the pipeline's design limits and maximum operating pressure of the pipeline and its components. In doing this consideration will be given to variations in altitude along the pipeline, the proper operation of pressure monitoring and control devices along with the impact of the presence of crude oil in the pipeline. The Operator/Dispatcher will advise the Oil Movements Supervisor of any unusual events that may have occurred during the start up.

(c) The procedures for starting pump stations and specific pumps are found in Appendix A.

801.3 - Procedures for Excavation of Facilities

(a) Before beginning any mechanical or sub-surface work on a pipeline ROW which is part of the facilities operated by the McPherson Control Center, advise the Control Center of the location

and type of work to be done. Call again upon completion or when work is discontinued for the day. These procedures are general guidelines for accepted best practices. Site conditions and other circumstances may require operators to vary from these guidelines.

(b) Excavation safety is taught through the Eduneering (Knowledge Wire) training modules. A "competent person" will be responsible to ensure that proper sloping or shoring is in place, means of access and egress are within 25' of workers, that spoil is at least 2' from edge of excavation, and other safety requirements are met on all excavations. Generally Jayhawk's competent person will be the equipment operator or the inspector. All persons on the excavation site should be aware of who the "competent person" is. When observing a third party performing excavation on Jayhawk's facilities Jayhawk employees should inquire who the "competent person" is. Since we require an inspection of our buried lines whenever they are excavated, the ditch shall be shored or sloped according to OSHA standards before personnel enter the ditch.

When excavating a pipeline for the purpose of disconnecting or tying in a pipeline, recognize the possible hazard of fire and explosion.

Emergency plans for all affected facilities shall be reviewed for adequacy before starting the work, and modified, if necessary. All personnel working on the job shall understand the emergency procedures prior to starting work. Refer to Section 804 for drain-up, cold-cut, hot work, and plugging procedures.

Dry chemical (B - C) fire extinguishers, of at least 20# capacity, must be at any hot work site including where repairs are being made on existing pipelines or where tie-ins are being made. The extinguisher must be manned by an employee who has been properly instructed in the operation of the fire extinguisher. The employee assigned to the fire extinguisher must be aware of the fact that a welder's vision, while making a weld, is limited and often times obstructed. The employee must be prepared to give quick warning in case it is necessary for the welder and the welder-helpers to evacuate the area.

A properly trained employee shall use a combustible gas indicator (See Section 214) to determine that the oxygen level is not less than 19.5% and then determine that the concentration of hydrocarbon vapors in the area is below 10% of the Lower Explosive Limit (LEL). This employee shall make an assessment of the hazards present and make frequent checks with the indicator.

The use of monitoring equipment should also be used in excavated trenches. It is important to take adequate precautions in excavated trenches to protect personnel from the hazards of unsafe accumulations of vapor or gas and making sure that when needed emergency rescue equipment including rescue harnesses and breathing apparatus is available.